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ABSTRACT

This case study explores the use of survey feedback--an organizational development technique--in an educational field setting. A version of survey feedback was used with an alternative high school to assist the staff in defining problems and in developing and implementing change strategies. Based on a perspective that focuses attention on the organizational context in which educators operate, the intervention combined organizational theory, survey methods, and group problem-solving techniques. The impact on the organization of the school was assessed through interviews, observations, and a readministration of the original survey instruments. The results showed that, after the workshop, staff members used organizational theory to define problems and continued to rely on problem-solving techniques to develop solutions. Between the two surveys there were some significant changes in the school's organizational patterns and levels of conflict. (Author)

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School of Education, Stanford University
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USING SURVEY FEEDBACK IN A SMALL ALTERNATIVE HIGH SCHOOL

Terrence E. Deal and Kathleen M. Huguenin

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Introductory Statement

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This case study is part of the work of the Environment for Teaching Program.

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Abstract

This case study explores the use of survey feedback--an organizational development technique--in an educational field setting. A version of survey feedback was used with an alternative high school to assist the staff in defining problems and in developing and implementing change strategies. Based on a perspective which focuses attention on the organizational context in which educators operate, the intervention combined organizational theory, survey methods, and group problem-solving techniques. The impact on the organization of the school was assessed through interviews, observations, and a readministration of the original survey instruments. The results showed that after the workshop staff members used organizational theory to define problems and continued to rely on problem-solving techniques to develop solutions. Between the two surveys there were some significant changes in the school's organizational patterns and levels of conflict.

USING SURVEY FEEDBACK IN A SMALL ALTERNATIVE HIGH SCHOOL

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Introduction

Recently, while skimming through a book about tropical fish, we stumbled on the statement: "When your fish get sick, something probably is wrong with your aquarium." In that context, the statement seemed obvious. But it is seldom so obvious to those involved with social organizations or programs, who too often focus attention on individuals and ignore the possibility that the settings may be producing the particular problems (Caplan and Nelson, 1974). This individualistic bias is particularly evident in educational organizations. The roots of many problems in schools have been laid at the doorsteps of teachers, administrators, or students when, in fact, such problems have arisen from the nature of their work situation.

Sunshine High School is a case in point. This case study of a survey-feedback intervention conducted with the staff provides evidence against the premise that "the roots of organizational problems inhere in individuals." The events at Sunshine support a more sociological interpretation: "when problems exist it is not the principal and faculty but the patterns of the social organization and interaction that need to be changed." The ability of the Sunshine staff to alter the nature of their work arrangements suggests another avenue for improving school organizations.

We became involved with Sunshine High by accident. We were interested in field testing a version of the organizational development (OD) technique--survey-feedback. Sunshine was a small alternative high school with a staff caught up in what were defined initially as intense interpersonal and philosophical conflicts. We and the Sunshine staff combined forces to use survey results to define problems more clearly, to develop and implement solutions and to evaluate the results. On a more general level, we wanted to assess the feasibility of using our version of survey feedback to change organizational patterns in schools.

In this paper we first present the theoretical framework underlying the survey-feedback approach. Second, we describe Sunshine High and trace how the survey-feedback intervention unfolded there. Third, we assess the results: Did the intervention change Sunshine's organizational patterns and improve the school? Finally, we discuss the implications of this case study for future attempts at intervening in the social organizations of schools.

The Theoretical Framework

The Theory Behind the Approach

Organizational development (OD) is a loosely defined field that incorporates a variety of activities that apply organizational theory and knowledge to existing issues and problems in organizations. For some, OD is an art based on the use of prior experiences, wisdom, and intuition. For others, OD is a science (or at least a quasi-science) that relies heavily on organizational theory and research for the design and conduct of interventions.

Among those who take the "scientific" approach, two schools of thought are predominant. One operates mainly from a social-psychological base (see, e.g., Argyris, 1964; Lewin, 1952; McGregor, 1960; and Schmuck et al., 1972), and sees human relationships as the focal point for organizational change. OD efforts derived from this perspective emphasize the human, interpersonal, and informal side of organizational life. Organizational change is accomplished through building the personal skills of organization members, fostering collaborative norms, building interdependent working relationships, improving approaches to problem-solving and conflict resolution, fostering a supportive organizational climate, increasing the level of communication, or improving the nature of leadership (Friedlander and Brown, 1974). Change is thus stimulated and regulated through individuals or small groups.

The second school of thought operates in a more sociological tradition--its theorists are often labeled "structuralists"--that emphasizes the formal structure of organizations (Weber, 1947; Thompson, 1967; and Scott, 1975). The structuralists view organizations as complex systems where social structure, goals, technology, and the environment interact and directly influence

one another. Their approach (called a "contingency" approach) emphasizes the importance of designing or changing one aspect of an organization to fit the others--in particular, changing aspects of the formal structure to accommodate patterns or changes in the organizational technology or environment (Udy, 1965; Lawrence and Lorsch, 1967). OD followers of this school emphasize tailoring formal patterns--differentiation, collaboration, and coordination--to meet the demand of increasingly sophisticated technologies and turbulent environments. Changing formal roles and relationships (e.g., in the areas of evaluation, decision-making, and conflict resolution) is for them the key to adjusting effectively to environmental or technological change. Structuralists view individuals and the informal side of organizational life as elements that will follow the lead of structural change--and often as elements that serve as a barrier to designing structural forms best suited to an organization's needs. Change is thus stimulated and controlled through organizational structure.

The Survey-Feedback Approach

The approach used at Sunshine drew heavily from "structuralist" theory and from the survey-feedback techniques used in other OD interventions (Miles et al., 1969; McElvaney and Miles, 1971; Likert, 1961; Schmuck, 1973; Coughlan et al., 1972; and Bowers, 1973). It consists of three main components: (1) an underlying conceptual framework that views school organizations as complex, dynamic social systems; (2) a set of operations for the systematic acquisition of information about the organization's goals, informal patterns, formal structure, technology, and environment; and (3) a structured process in which organization members participate in collecting information, learning organizational theory, defining problems, developing and implementing strategies, and evaluating the results (see Deal, 1975; Deal and Huguenin, 1975; and Deal et al., 1975). As noted, the underlying theory emphasizes the influence of the organizational context on individuals, rather than vice versa. The formal patterns of roles and relationships, and the processes used to coordinate or integrate individual efforts, are singled out for special attention. Survey feedback is a diagnostic tool designed to help organizations tailor work arrangements to fit the "contingencies" of their unique situations. In a nutshell, survey feedback is an evaluation technique that combines theory, information, and participation to help organizations improve.

Under ideal conditions, survey feedback would unfold as follows: (1) a policy group, composed of members from important constituencies, would be formed to oversee the process: (2) initial interviews would be conducted (probably by an outside consultant or team) to identify potential strengths and weaknesses of the organization; (3) based on these interviews, and in close conjunction with the policy group, a survey instrument would be constructed and administered to the entire organization or a sample from it; (4) the results would be analyzed and summarized: (5) in a workshop format, members of the policy group and peer groups (i.e., natural work groups such as administrative teams, counselors, or third-grade teachers) would be introduced to organizational theory (for the specific content see Deal et al., 1975) and would be trained in using systematic information and in developing problem-solving skills; (6) the survey results would be given to the policy group and peer groups, which would discuss them, define problem areas, and propose some possible solutions for their immediate work setting; (7) a plan would be developed to implement the chosen strategies in a general scheme; and (8) the strategies would be evaluated to see if the initial conditions had improved.

In specific situations, the process would be modified and adapted to suit local conditions, needs, and resources. Despite local adaptations, the three central elements of the process would always be used: (1) information, (2) a shared organizational frame of reference, and (3) participation relying heavily on problem-solving and other group-process techniques. The survey-feedback design at Sunshine High School followed the core sequence, but was adapted considerably to fit the unique characteristics of the situation.

The Setting: Sunshine High School

Sunshine High School an alternative school, is part of the public school system of a large California city. Sunshine has been in existence for three years. Its approximately 75 students are drawn from throughout the city based on their dissatisfaction with the regular school programs. The student population is balanced sexually and is fairly representative of the various ethnic and economic groups of the city.

Sunshine has a staff of seven--a secretary and six teachers, one of whom is the head teacher.

Collecting the Information

Initial Contact

The initial contact with Sunshine was a telephone call from the head teacher seeking help in solving a problem of intense personal and philosophical conflicts among the staff members. The head teacher requested assistance in changing the staff personalities or in helping to clarify or reconcile the staff's divergent values. The conversation was ostensibly between us and the head teacher but at many points the head teacher consulted with other staff members who evidently were sitting, as a group, around the telephone. Our response to their request for assistance in changing people or their philosophies was "maybe those are only symptoms of underlying organizational problems." The head teacher and the staff were not convinced, but agreed to have us visit to explain our approach in depth and to interview members of the staff to determine whether the survey feedback process could be of help.

The initial visit and interviews allowed us to draw some tentative conclusions. The school's organizational patterns appeared to be contributing to the staff conflicts, because the staff reported conflicting images of their roles, relationships, and patterns of interaction. As we left, we told them we thought survey-feedback might provide a needed and workable process for identifying and solving their recurrent problems. We also told them that we would not proceed unless they agreed unanimously to participate. In some respects, this consensus requirement was an additional barrier to a possible solution, since the staff had problems reaching consensus on anything. Finally after an intense meeting where one staff member reportedly "moved" that another be fired, after which the object of the motion retaliated in kind (both motions failing), the group decided to go ahead with the process. A contract was drawn up and sent to Sunshine School specifying that Sunshine would carry a share of the expense and elaborating the specific mutual obligations of our group and theirs. Specifically, they agreed to complete the survey instrument, to participate in a two-day workshop, and to reimburse us for our time and travel. We agreed to analyze the questionnaires and to conduct the two-day workshop, in which we would present the results.

The Survey

We constructed a long survey instrument (30 pp.) to fit Sunshine's unique circumstances on the basis of our initial interviews. Items were included to measure staff perceptions of the school's (1) community environment, (2) educational goals, (3) instructional program, (4) informal norms and relationships, and (5) formal structure and processes. The questionnaires were sent to individual staff members, who responded independently and returned them before the summer recess.

Preparing for the Feedback Workshop

Analysis of the Results

During the summer months, we analyzed the questionnaires and summarized the results. The analysis confirmed our initial impressions that many of the staff's problems could be attributed to formal patterns of roles and relationships. Among other things, roles were unclear and often overlapped; the authority structure was flat, and authority was centered in the staff as a collective; individual images of the decision-making process conflicted; formal policies were non-existent; and meetings were long, unstructured sessions at which decisions were sometimes reached but never implemented. Surprisingly, the staff's agreement on goals was high, and the informal patterns and norms encouraged free expression, collaboration, equal participation, and many other group attributes that by most standards were "healthy." These results tended to cast a new light on the problem as initially perceived by the staff.

Unanticipated Problems

Once school resumed, we contacted the staff to schedule the feedback workshop. Several unanticipated problems immediately surfaced. First, the school staff said they did not have the money to carry their share of the financial load. Our response was that we would proceed anyway, hoping that they could eventually obtain the funds. Second, they were reluctant to "spend the time" to hear about the survey results. We replied that we had all invested too much time to stop now. Third, they had become concerned about the nature of the feedback session. Would it involve "sensitivity

training"? Were the results positive? Fourth, over the summer the school had adopted a new instructional model that the staff believed might make all their problems disappear. Eventually, after the first staff meetings showed that the old problems and conflicts persisted despite the new model, the staff agreed to proceed with the workshop.

In a memorandum prior to the workshop we outlined the purposes and activities of the proposed sessions, some specifications (it had to be held away from school with everyone attending), and some requests for necessary materials (including large sheets of paper, an overhead projector, and other traditional "tools" of the OD trade).

The Problems of Organizational Change from a Nonrational Perspective

A week before the workshop, we discussed our plans and our concern about the apparent ambivalence of the Sunshine staff with John Meyer, one of our Environment for Teaching colleagues. Meyer emphasizes the nonrational aspects of organizational life, arguing that evaluation and attempts to clarify organizational structures and processes challenge and undermine existing organizational "myths" and "rituals" (see Meyer, 1975; Meyer and Rowan, 1976). In educational organizations, where procedures, goals, and outcomes are unclear and difficult to measure, "myths" and "rituals" play an important role in holding the organization together. Structural interventions, because of their rational emphasis, their potential contribution to conflict, their higher coordination costs, and their disruption of existing beliefs, will thus be avoided. Organizations enjoy being in the process of evaluation or participation in OD projects, for this provides a political advantage in an environment that favors evaluation and that values organizational development: nonetheless, evaluation results will be avoided because of their potential to challenge existing myths and beliefs. In this view, evaluation results are a direct threat to organizational "survival."

Meyer was not at all surprised at the ambivalent behavior of the Sunshine staff. He predicted that the existing ambivalence was only a prelude to further attempts the staff would make to "protect" themselves from the survey results. He anticipated that the staff would do the following: (1) fail to meet the conditions that had been mutually established for the workshop; (2) demean our status: and (3) sabotage the workshop by nonattendance, sporadic attendance, or selective inattention. Still

entrenched in our more rational viewpoint, we disputed these predictions; but we prepared a contingency plan in the event that Meyer's predictions proved accurate.

The Survey-Feedback Workshop

The First Day

We arrived early in the morning of the first day of the scheduled workshop to find that none of our conditions had been met and that the requested materials had not been provided. In addition, we were left alone for 45 minutes in the school's basement while the staff went about routine tasks. Once assembled, several staff members complained of illness and offered excuses for why they would miss various parts of the workshop. At our obvious clumsiness in setting up the overhead projector--which finally arrived--one staff member observed, "I thought you Stanford people were supposed to be experts." Meyer's predictions were fast becoming a reality.

We accordingly turned to our contingency plan. We began by having the staff list their concerns and expectations for the workshop (purposes, activities, and roles) while we listed ours. These lists (on butcher paper) were attached to the wall and compared to locate conflicts between the expectations of the two groups. Several conflicts were readily apparent. The Sunshine staff expected us to be experts who would solve their problems for them. They also wanted to be free to leave at any time to deal with the daily problems of the school. These and other differing expectations were listed on a separate sheet of butcher paper. We all then selected a procedure for resolving these conflicts from among "consensus," "negotiation," "authority," and "majority rule." We all agreed to proceed by consensus, but the two of us soon realized that the conflicts were in fact being decided by authority--ours. We shared our perceptions of this shift in the ground rules with the staff, but they unanimously agreed to proceed.

The conflicts were resolved, the purpose, roles, and activities were agreed upon, and the two-day agenda was laid out. The initial apprehension seemed to dissipate, and the staff displayed a new level of commitment to the workshop. At this point we reviewed the various skills and procedures that had been used in this initial session to make expectations come to the surface and to resolve conflicts. We then broke for lunch.

The workshop began after lunch, when we explained organizational theory to the Sunshine staff so that they could see their problems from the same viewpoint we did and we could all operate from the same "world view." We began with a simulation. A situation, called the Impossible Team, illustrated the difficulties a group of teachers encounter when working together. The Sunshine staff was broken into two smaller groups, each of which was asked to define the problem of the Impossible Team and to suggest what might be done to remedy its situation. In each group, staff members quickly identified with the problem, projected their own situation onto the Impossible Team, defined its problem as personality and philosophical differences among the Impossible Team members, and suggested that the problem could be solved by, among other things, firing all the teachers and hiring a new team, or "screwing the team idea and going individual."

Next, we introduced the concept of perspective and described how a frame of reference can determine what questions are asked, how problems are defined, what change strategies are proposed and selected, and how results are evaluated. An individualistic perspective--where people are the center of attention--was contrasted with an organizational perspective--where the setting or situation becomes the focal point. The third part of the perspective building section of the workshop was a short lecture highlighting the five organizational subsystems--goals, technology, environment, informal patterns, and formal structure--and showing how they are interrelated. Highlighting the dynamics of organizations, the "hernia theory" of organizational change was introduced, showing how change in any subsystem produces "bulges" in the others. We gave a number of examples, and then asked for questions and reactions. Two staff members initially questioned the validity of the framework, but seemed reassured when we told them that the perspective was grounded in experience as well as theory and research.

After the theory session, the two small groups returned to the Impossible Team simulation with the task of defining the Team's problems from both an organizational and an individualistic perspective. For each they were to suggest appropriate strategies for change. Now the definitions included such elements as "lack of efficient decision-making structures," "no standard set of policies," "no structure to provide for the coexistence of diverse philosophies," and "lack of well-defined evaluation mechanisms." Their solutions now envisioned changes in these structural elements.

At this point in the workshop, the staff seemed clearly to understand the distinction between the two frames of reference and were able to apply the organizational perspective to the hypothetical situation. The staff was also introduced to the specific skills of brainstorming and recording group ideas. Each subgroup also completed a short group survey concerning their participation in the group process of dealing with the Impossible Team.

The organizational perspective activity lasted approximately an hour and a half.

Over the next half hour we focused on the use of information. The main message was that one's perspective determines the questions, but information plays an important role in determining the answers. The staff discussed as a group the advantages and disadvantages of various methods of acquiring information: surveys, interviews, observations, and unobtrusive measures. We then gave a short presentation on how information is summarized. Measures of central tendency and of dispersion, and statistics for measuring each, were introduced and discussed. Additional information was provided about the interpretation and use of survey information. The two subgroups were then reconvened, and each computed a mean and a range of the three items on the group survey questionnaire and discussed what the results suggested about participation patterns in their group. The information session finished with an exercise on paraphrasing, emphasizing the various facets of communicating information and of giving and receiving feedback.

At this point we moved from information gathering to what to do with it--problem solving. We gave a short presentation outlining the steps in a rational problem-solving sequence--problem identification and definition through the evaluation of tried solutions. For each step, several OD techniques were introduced: force-field analysis and the delphi technique (Schmuck et al., 1972) for defining problems; brainstorming for generating possible solutions; and the matrix and the organizational subsystems model (Deal and Rosaler, 1975) for selecting appropriate solutions. The staff was initially concerned about the practicality of moving through these stages for each school problem. We explained that, in some manner, people go through these steps whenever a problem is solved, even though the process may be intuitive or implicit. Moving through the full process systematically is time-consuming, of course, so we suggested that the complete process be used only for special problems.

In the fourth substantive area covered we moved from the problem-solving process itself to the special difficulties involved in using such an approach in group situations. First we had the staff play the game of broken squares, in which group members must cooperate to put together four separate puzzles. Both subgroups had difficulty in putting their squares together, and the game thus highlighted some of the difficulties the staff members reported in their day-to-day interaction. After the game, we asked them to comment on the difficulties involved in solving problems as a group. Their list included most of the generally accepted group pathologies: creating scapegoats, unequal participation, status and power struggles, differing expectations, avoidance of action in conflict situations, and the weaknesses inherent in relying on only one decision-making strategy. As the list grew, the staff saw that it included many of their own group problems. The head teacher asked how we solved problems in our own work setting, and we assured him that the problems they had identified were general phenomena. This seemed to make the staff feel more comfortable.

At the conclusion of the first day, we gave the staff members a form and asked them to evaluate the day's activities. On a scale of 1 (low) to 5 (high) the mean responses were as follows:

The workshop met stated goals	4.14
You were able to participate actively	4.71
The format was varied	4.71
The pacing and timing allowed you to comprehend the material	4.66
You became acquainted with new process skills	3.42
You became familiar with an organizational perspective	4.57
You are now acquainted with the usefulness and potential of survey information	3.86

The three things staff members listed as especially useful or enjoyable were (1) problem solving and the initial process of resolving the conflict between them and us, (2) learning the distinction between an individualistic and organizational perspective, and (3) learning techniques for discussion that developed a climate of openness. We asked the staff to summarize their workshop evaluations and present them to us at the beginning of the second day's session, which was set to begin at 7 a.m. the next day.

Summary

The first day's beginnings shook our rationalistic views. For whatever reason, the initial situation was difficult, and the staff probably meant to sabotage the workshops as Meyer had predicted. By bringing the conflicts and expectations of both sides to the surface and reconciling them, though, we were able to clarify the workshop's purposes and activities, build a strong mutual commitment to the agenda, allay suspicions, and build a sense of trust. This initial activity was the key to the day's success.

The Second Day

The second day began quite differently from the first. We arrived to coffee, homemade coffee cake, and a well-dressed and chipper staff. The session began with the staff presenting to us their evaluation of the previous day's workshop. We discussed these results and tried to use them as a basis of suggestions for improving the second day's agenda. The only real conflict arose because they wanted only to hear and discuss the results, whereas we wanted them to move beyond the results into defining some problems and developing some potential solutions. (This again substantiated Meyer's prediction.) They finally agreed to push toward the development of specific strategies.

Once the day's agenda was set, the staff broke for a conference with the parents of a student who had been expelled. (This break in the program had been agreed upon beforehand.) Lacking any explicit policy concerning expulsion, and disagreeing among themselves, the staff went through a tense and chaotic meeting with the parents. They finally took a vote to determine whether or not the student would be reinstated. When the staff returned to our session, we attempted to analyze the meeting from an organizational perspective. The staff avoided what we saw as the central issues--namely, the lack of a prearranged policy, and the resulting use of majority rule to decide important school issues.

The workshop then shifted to the actual survey results. We first reviewed the process of summarizing information and the two important dimensions of the data we were to present--central tendency, and dispersion or agreement. We then presented results in the area of satisfaction and effectiveness, which gave them a chance to become familiar with the feedback process. We then presented the survey results for each organizational

subsystem. The results, their reactions, the process we went through, and the resulting definition of problem and solution are summarized below.

Goals. The results in this area showed substantial agreement. In discussing the problem, the group felt strongly that the emphasis of individual goals and their level of agreement might have changed over the summer. They decided to readminister the goal portion of the survey.

Informal patterns. Contrary to the initial perceptions of the staff, ten out of twelve areas of general atmosphere in the school indicated a positive interpersonal climate. The staff accepted these data; thus no problem definition or solution was necessary in this area.

Formal structure. This area was subdivided into five components: meetings and climate, policies, role differentiation, involvement in decision making and authority relationships, and evaluation and interdependence. The staff reported the interpersonal climate of meetings as relatively sound, but their satisfaction with meetings was fairly low; the problem-solving process was fragmented, particularly in the implementation and evaluation of decisions. The staff broke into two subgroups to consider this problem and then returned to the large group, where two factions quickly emerged: those who wanted to improve meetings by making them more structured, and those who wanted to improve meetings by providing staff training in communication skills. The two positions were confronted by using a fishbowl technique. Through an intense discussion, the two spokespersons reached a resolution in which they mutually decided to emphasize restructuring the meetings. Yet when we attempted to commit the agreement to paper, they recanted by saying they thought it was just a practice session. Nevertheless, the group eventually reached consensus on three problem areas: failure to rely on a variety of methods of decision-making in meetings; reliance on personalities and emotions in reaching decisions; and lack of equitable consideration of all input.

The strategies chosen to improve the meetings were as follows: each agenda item should include a recommended method of decision-making; when any suggestion was made the initiator should present both the pros and the cons; the staff should work on communication skills; any major agenda item should be circulated one week in advance to obtain full consideration of the various opinions held by staff members.

The results indicated that Sunshine School lacked policies in nearly every area. The group used a force-field analysis to analyze this problem, identifying the forces that were operating both for and against the development of schoolwide policy. The earlier parents' meeting was cited as an example of the consequences flowing from this lack of policy. We demonstrated a matrix approach to select from some alternative strategies a means of developing schoolwide agreements (source). The group agreed to devote one staff meeting to going through the matrix as a way of identifying a solution to the school's low level of policy.

The survey results showed that the perceived distribution of responsibilities among the various roles produced a number of overlaps and often left important areas outside anyone's jurisdiction. The staff felt that over the summer the adoption of their new instructional model probably had resolved this problem. They decided, however, to readminister this part of the questionnaire, too, to test this assumption systematically.

The survey results showed a relatively flat distribution of authority as measured by the extent of involvement in decision-making across individuals and groups. This was based on a five-point scale from "would not be involved" to "must approve." The staff as a group was perceived as having the highest level of authority over a number of issues; the authority of the head teacher was lower and nearly equivalent to that of the students. Most importantly, however, there was little agreement about how these various individuals or groups were actually involved in decision-making. At times, in fact, the pattern appeared to be random. These results quickly produced strong staff reaction: there were accusations of misunderstood questions, people not telling the truth, the secretary not knowing what went on and therefore skewing the results. The staff requested the actual breakdown of the results and agreed to go over each decision area in one of their meetings to see if they could discover the basis for their disagreement.

We quickly presented results on evaluation and interdependence. The staff's perception of evaluation processes indicated that students were most significantly involved in the evaluation of the staff and that other staff members and the head teacher were less prominent.

The discussion of the survey results in the areas of goals and formal structures lasted through lunch and into the early afternoon. Because of time constraints (we had to catch a plane) we moved quickly through the results in the remaining areas.

Instruction. We reviewed the instructional program at Sunshine, noting that the staff perceptions consistently indicated fairly complex instructional patterns.

Environment. The community environment at Sunshine was perceived as fairly passive. The staff perceptions of the community's educational expectations are roughly equivalent to their own. The staff decided that perhaps a survey of the community's expectations might be helpful.

After the staff had defined problems in each of these subsystems, focusing in particular on formal structure, we raised questions about how each strategy might affect other aspects of the organization. On the basis of this discussion, the group decided against administering the parent survey because they felt that to activate the community might overwhelm the staff at a critical point in the school's development. The parent survey was thus tabled.

The final activity of the workshop focused on future relationships and the need to assess the effects of the workshop. The staff agreed to follow-up visits. The final evaluation showed a high level of staff satisfaction with the second day's workshop--on eight items the mean response was well above 4.5. The staff's overall evaluation of the workshop (based again on a 1 to 5 scale) was as follows:

Usefulness	4.8
Quality	4.8
Enjoyment	4.8
Achievement of original goals	4.6

Summary

Though pleased with the way the workshop had gone and with the commitment and positive reaction of the staff, we ended the two-day session with several concerns. First, the process had proved more difficult than we had initially expected. Second, because of time constraints we had skimmed over many important issues. Third, though the staff had diligently attempted to define problems, their solutions were often "let's readminister the questionnaire" or "we'll take that up later"; to some extent, the session had let the staff "off the hook." We questioned whether our reluctance to be cast in the role of outside experts kept us from pushing the staff toward the selection of strategies for change. Fourth, and most important, we

wondered whether the concepts and skills presented during the workshop would "take hold" and whether they would be used by the Sunshine staff to help define and solve their problems.

The Impact of Survey Feedback at Sunshine

At the end of the workshop, the Sunshine staff made two commitments: (1) to allow us to observe at the school and interview each staff member at least once a month, and (2) to allow us to readminister selected portions of the initial questionnaire at the end of the school year in June. This was designed to help us determine what impact the survey-feedback process had at Sunshine.

The observations and interviews were to help us determine what aspects of our approach (organizational theory, the use of information, and problem-solving techniques) continued beyond the workshop or became part of the Sunshine staff's daily operation (i.e., were implemented). Readministering parts of the questionnaire was to help us determine the actual changes that occurred in Sunshine's organization: goals, formal structure, technology, informal patterns, and the relationship between the school and the community environment. Given our preliminary diagnosis (which focused attention on Sunshine's structural patterns as the cause of many of their organizational problems--long meetings, excessive conflict, low morale, and interpersonal warfare), we wondered whether the staff would alter these patterns over time. And if these patterns were altered, would that result in an alleviation of the original problems?

Implementation of Survey-Feedback Components

We were interested in the extent to which the three facets of the survey-feedback process--reliance on an organizational perspective, use of systematic information, and use of problem-solving techniques--became an integral part of Sunshine School following the workshop. Our observations and interviews revealed that the staff continued to use the organizational perspective in approaching issues and problems. This change was perhaps the most significant. The staff began to define their problems and generate solutions in ways that were more organizational than interpersonal. Roles replaced personalities as the target of criticism; redefining roles and

responsibilities became the preferred strategy to changing people or engaging in interpersonal warfare. In response to problems, structural solutions were often offered, tried, and evaluated. For example, when the need to acquire additional community resources arose, the staff proposed the following "solutions": redefine one staff role to focus solely on this task; redefine all staff roles to include a part of this task; or rotate this responsibility among the staff. The solution agreed upon was to have one staff member take on this task in addition to his/her regular role, while the other staff members would assume those responsibilities displaced by this new role on a rotating basis.

Occasionally the staff used the organizational frame of reference as a new weapon for personal attack and abuse. Yet, conversely, in a situation where a new responsibility was assumed by a staff member and problems arose, the staff blamed the lack of specificity in the role itself rather than the person. When a question arose over the distribution of responsibilities, the staff undertook a systematic accounting of how they spent their day. This replaced the accusations and testimonials they might have relied on a year earlier. Thus, overall, the Sunshine staff continued to use the organizational perspective to define and solve problems long after the workshop ended.

The Sunshine staff did not continue to rely on systematic information as heavily as we had hoped. For example, they elected not to survey the students or parents in response to a problem. However, they did readminister a revised version of the goal section of the original survey, the results of which were analyzed and interpreted in a staff meeting.

And as an unobtrusive measure of their faith in objective "data," the staff was quite amenable to allowing another consultant to assess the implementation of their new instructional model. They felt the information they would receive as a result would help identify areas where they might improve. The staff continued to use the problem-solving techniques in a variety of ways during staff meetings. The use of a facilitator and a version of delphi technique--whereby all sides of an issue could be aired prior to making the decision--were incorporated into the formal structure of staff meetings. The "matrix" technique was used often, while force-field analysis, fishbowl, and group memory techniques were relied on less frequently. Nonetheless, all of the techniques seemed to provide the staff with a much-needed repertoire of tactics for overcoming their normal impasses.

Changes in Sunshine School's Organization

Our analysis focused on the changes in Sunshine's organization between the first and second surveys, with the workshop (among other variables) as an intervening event. The major focus was on the extent of change over time in various organizational subsystems of the school organization: goals, informal patterns, formal structure, instructional practices, and environment. Formal structure was further broken down into role differentiation, interdependence, and coordination. We also compared staff perceptions of conflict, effectiveness, and satisfaction at the two points in time.

The results of the two staff questionnaires were compared using measures of central tendency (mean) and level of disagreement (standard deviation) of the responses. Where appropriate, we used the nonparametric Wilcoxin Matched-Pairs Signed Rank test to determine the statistical significance of changes between the two times. Where the Wilcoxin test was not appropriate, we regarded a change of .5 or more (on a five-point scale) as significant and a change of less than .5 in either direction as an indication of no change between time 1 and time 2. The standard deviation is used throughout as an indicator of the level of disagreement among staff members for particular items. The higher the standard deviation, the greater the disagreement.

Sunshine staff members ranked thirteen goals in order of importance on the two questionnaires. The position of six did not change between time 1 and time 2: experimenting with new teaching methods; allowing students to take responsibility for their own learning; teaching basic skills; fostering personal growth; encouraging creative thinking; and evaluating student progress according to strict, uniform standards. Four goals had lower overall importance at time 2 than at time 1 (goals in areas primarily concerned with particular categories of students, such as the gifted or the disadvantaged, and with classroom discipline), and three goals greater (covering curriculum requirements, developing close teacher-student relationships, and exploring a wide range of career options). The relative importance of the various goals remained the same for nine of the thirteen goals. In three areas, agreement among staff members decreased. In only one area did staff members agree more at the second administration of the questionnaire.

To assess informal patterns at Sunshine, we asked staff members to indicate how frequently the general atmosphere of the school displayed twelve

characteristics. These characteristics have been used in previous work to indicate a positive interpersonal climate (Schmuck et al., 1972). Responses on a five-point scale were from "Always" (5) to "Almost never" (1). At the time of the first survey, ten of twelve areas had means of 3.0 ("Fairly often") or higher. Data from the second survey confirmed this relatively healthy interpersonal climate. Nine of the twelve areas consistently maintained a mean of over 3.0, and the overall composite ranking was 3.1.

We assessed changes in the formal structure of Sunshine School in three main areas: differentiation among staff roles; collaboration or interdependence among staff members; and various aspects of coordination, including decision-making, evaluation, and formal policies and meetings.

We asked staff members how much responsibility they perceived themselves as having in different areas. The roles of the Sunshine staff became more differentiated between the two surveys. Internal responsibilities were more adequately covered with fewer staff members reporting overlapping responsibilities. But in external areas connecting the school with its environment, such as "involving parents," staff members reported similar levels of responsibility at time 2.

Interdependence among staff members increased in three areas surveyed: sharing materials, taking other staff members into account across a variety of tasks, and depending on each other. Table 1 reports these results (all

TABLE 1

Mean Responses on Staff Interdependence

Area of Interdependence	Time 1	Time 2
Sharing materials	2.7	4.8*
Taking other staff members into account (across a variety of tasks)	2.8	3.4*
Depending on other (individual) staff members	2.7	3.6*
* $p = .025$		
Disagreement (standard deviation)	1.33	.94

based on five-point scales, with 5 indicating highest interdependence) as well as the agreement among the seven staff reports. As shown, not only did interdependence among staff members increase significantly, their agreement also rose substantially.

The involvement of the various actors or groups across a range of decision areas changed between the two surveys, as shown in Table 2. The means are based on a five-point scale, 5 indicating the highest level of involvement in decision-making ("Must approve [or disapprove] the decisions of others"). As Table 2 shows, the involvement of various individuals in decision-making did not change substantially. The differences between the involvement of the highest and lowest individuals or groups decreased--that is, the authority patterns became even more flat at time 2. "Individual teachers" surpassed the decision involvement of the "head teacher" the second time. "Parents and community" was the only group reported by the staff to be more involved in Sunshine's decisions at the time of the second survey.

TABLE 2

Mean Responses on Involvement in Decision-Making

Actor or Group	Time 1	Time 2
District office	2.2	2.1
Head teacher	3.7	3.1
Staff	4.2	3.8
Students	3.2	2.7
Individual teachers	3.6	3.6
Parents/community groups	2.2	2.4
Disagreement (standard deviation)	1.0	1.1

Evaluation patterns at Sunshine were assessed by asking all staff members to indicate the frequency, fairness, and importance of evaluations from five sources. Table 3 compares the aggregated staff responses at both times. For frequency and fairness, the comparison is based on the mean (five-point scale; 5="Very frequent" or "Extremely fair"). For importance, the values of the various evaluators are based on a five-point ranking (1="Most important").

TABLE 3

Mean Responses on Frequency, Fairness, and Importance of Evaluations

Evaluator	Frequency T1	Frequency T2	Fairness T1	Fairness T2	Ranking on Importance T1	Ranking on Importance T2
Head teacher	2.4	2.2	5.0	3.8	3	2.5
Other staff	2.6	3.0	4.4	3.8	2	2.5
Students	4.3	3.5	4.6	4.2	1	1
Parents	1.9	2.4	4.2	4.2	4	4
District office	1.5	1.3	3.7	3.5	5	5
Disagreement (standard deviation)	1.1	1.0	.7	1.0		

The most striking change occurred in the perceived fairness of evaluation. All sources, with the exception of parents, were perceived as less fair at the time of the second evaluation. Frequency of evaluation remained relatively stable. The staff reported less frequent student evaluations and more frequent parent evaluations. The frequency of the evaluations of other staff members showed an increase which fell just short of the .5 cut-off point. The rankings of various evaluators based on their perceived importance also remained stable between the two surveys, except for the slight change in the importance of the head teacher and the staff as a whole.

We assessed sixteen categories of formal policies at Sunshine. For comparative purposes, the sixteen categories were grouped into four broad areas: policies focusing on individual classrooms, policies governing the whole school, policies governing staff meetings, and policies pertaining to the school's environment. The means for time 1 and time 2 (based on a three-point scale, with 3 representing "Detailed, explicit policy") are shown in Table 4.

Policies on staff meetings became substantially more formalized between the two surveys. Although policy changes in the three other areas were not statistically significant, the trend in each case was toward the direction of increased formalization.

TABLE 4

Mean Responses on Explicitness of Policy

Formal Policy Area	Time 1	Time 2
Classroom policies	1.6	2.0
Schoolwide policies	2.1	2.4
Policies governing staff meetings	1.7	2.9*
Policies regarding the environment	1.7	2.0
*p = .01		
Disagreement (standard deviation)	1.3	.7

It is important to note the shift in disagreement among staff members over the extent of overall policy from a standard deviation of 1.3 to .7. In fourteen of sixteen areas disagreement decreased. In no instance did staff disagreement over the extent of policy go up. Not only did Sunshine's policies become more formal, but the staff perceived this shift uniformly.

At the time of the first survey, the staff reported holding two-hour meetings daily (on average). The second survey showed that the frequency of staff meetings had dropped to only one two-hour session per week (on average). Questionnaire items dealing with meetings fell into three areas: formal problem-solving processes, interpersonal climate, and satisfaction with meetings. An ideal response to each item was developed by having two independent judges select the responses that would characterize good meetings.* The difference between the mean response of Sunshine's staff and the ideal was tabulated. A difference of zero represented a perfect score. The

*Examples of a specific item in each category and "ideal" responses are as follows.

Problem-solving processes: "Decisions are often left vague as to what they are, and who will carry them out" (Almost never).

Interpersonal climate: "People are afraid to be openly critical or make good objections" (Almost never).

Satisfaction: "The results of the meetings are worth the time" (Usually).

lower the number, the less the deviation from this ideal and the better the score. A comparison of the extent to which the problem-solving processes, interpersonal climate, and staff satisfaction with meetings matched the ideal at both time periods is shown in Table 5.

TABLE 5

Extent to Which Meetings and Climate Deviated from the Ideal in Both Time Periods

Area	Time 1	Time 2
Problem-solving processes	1.7	1.1*
Interpersonal climate	1.5	1.6
Satisfaction	2.0	1.3
*p = .05		
Disagreement (standard deviation)	.85	.88

As shown, problem-solving processes reported to be employed in meetings changed significantly between the two surveys. At time 2, Sunshine's meetings more closely matched ideal problem-solving criteria than at time 1. The interpersonal climate of staff meetings remained about the same, but staff satisfaction with meetings increased significantly (using the .5 cutoff point; there were too few items to use the Wilcoxin test).

In most areas, instructional practices did not change significantly between the two surveys. However, these changes did occur: student autonomy increased, teacher-student contact in personal and vocational areas increased, and staff members reported relying more heavily on evaluation techniques.

Staff perceptions of the parent-community educational emphasis changed more than did their perceptions of their own existing schoolwide goals. According to the staff at time 2, the parents and the community placed less emphasis on maintaining classroom discipline, covering curriculum requirements, evaluating according to uniform standards, increasing learning opportunities for the gifted and disadvantaged, and increasing the percentage of college-bound students. More emphasis was reportedly given to encouraging creative thinking, encouraging students to take responsibility for their own

learning, fostering personal growth, and exploring a wide range of career options.

The actual number of school-community connections decreased between the two surveys, but there was an increase in formal connections and in the presence of parent volunteers in the school. The staff's perception of environmental support remained relatively stable, although their perception of "passive opposition by parents" increased somewhat.

Schoolwide conflict decreased between time 1 and time 2 from 2.3 to 1.8 (based on a five-point scale with 5 representing "A great deal"). This change is significant at the .025 level using the Wilcoxin test. Disagreement over this decrease in conflict dropped from a standard deviation of .7 to a standard deviation of .5.

There was no appreciable difference in perceived effectiveness of staff members in any of the four areas--achieving basic skills, promoting personal growth, maintaining staff morale, and maintaining community support.

All six areas in which satisfaction was assessed--school, students, working relationships with other teachers, occupation, parents, and district office--showed an upward trend. However, based on the Wilcoxin test, none of these differences was statistically significant.

Summary

The three main emphases of survey feedback--an organizational approach to problems, the use of information about the school, and the use of problem-solving techniques--were reflected in Sunshine High School's operations after this two-day workshop. The staff emphasized structural causes of problems and attempted to change roles, relationships, and processes rather than each other. They used a variety of problem-solving techniques in meetings, and to a lesser degree gathered information as an aid to their problem-solving activities. Between the two surveys Sunshine High School changed in the following ways. The emphasis assigned to educational goals shifted, but without a discernible pattern except for the increased emphasis placed on vocational-career plans of students. Instructional practices changed to accommodate more student participation in instructional decisions, more student-faculty interaction over career and vocational areas (paralleling the shift in goals), and more systematic and formal evaluation procedures. For the most part, Sunshine opened itself to more input from the community,

formalized connections with the community, and involved more adults in the instructional process. And perhaps as a result the staff modified their initial impressions about what parents and the community expected Sunshine to accomplish.

Structural changes in Sunshine were especially dramatic. Staff roles became more clearly differentiated, interdependence among staff members increased, the initial reliance on poorly organized and time-consuming formal meetings to coordinate individual efforts was replaced by a more diversified approach. Explicit policies and better organized staff meetings were developed. The role of students in evaluation was augmented to include input from parents and other staff members, although the perceived fairness of evaluations decreased. Whether as a result of these changes or not, conflict at Sunshine decreased significantly between the two periods, and the level of staff satisfaction increased.

Interpretation

We would like to claim that survey feedback--and the continued presence of its three basic components at Sunshine after the two-day workshop--was linked to the changes in Sunshine High's organizational patterns. The results are consistent with the basic theoretical assumptions underlying the process. Survey feedback is a technique designed to assist people in modifying work arrangements to fit their unique circumstances. Once work arrangements "fit" such circumstances as technology, environment, and human resources, attitudes, and skills, then the theory postulates that the organizations should be more effective. At Sunshine, work arrangements did change--as did levels of conflict and satisfaction. The central question is whether the organizational and "effectiveness" changes were linked and, if so, whether survey feedback caused these changes. We would be reluctant to push the claim that survey feedback produced the changes at Sunshine unless (1) we can rule out the possibility that some other intervening events had some effects, and (2) we can explain the changes theoretically.

Intervening Events

Let us look at the factors that may have influenced or produced changes at Sunshine.

Time. Over time, a staff can be expected to learn on its own from successes and mistakes. The first survey was conducted at the end of one school year; the second was conducted at the end of another. The changes in organizational arrangements might therefore have been a function of "organizational learning" over time.

A change in physical plant. In November of the second school year the school moved from an abandoned elementary-school building to a new building. Sunshine was now in a new external environment, more isolated from its immediate surroundings than formerly. The move also produced a change in the internal environment, making staff members physically more autonomous than they had been in the old building. Each staff member now had an individual classroom with a glass-enclosed office.

The adoption of a curriculum model. Between the two surveys, Sunshine adopted a new curriculum model. Part of a larger experimental effort, the model encouraged experience-based learning (in which students spent considerable time working with resource people in the community), teacher-student tutorials (designed mainly to assess learning goals and evaluate progress), and the assignment of staff members to varied roles as resource teachers, basic skills teachers, administrators, community liaison personnel, and secretaries, and a common set of instructional materials.

Theoretically, any of these events may have contributed to the changes in Sunshine's work arrangements. Practically, however, these influences did not appear to be highly associated with the observed changes for three reasons. First, the Sunshine staff found learning from experience somewhat difficult--for example, little "learning" occurred between the June survey and the October survey-feedback workshop even though the staff had had some opportunity to evolve toward more effective practices. In October, at least, the problems of the previous year were unchanged. Second, the new physical location encouraged autonomy rather than interdependence. Although the physical separation may have led to less conflict, it may also have been expected to reduce interdependence, which it did not do. Third, the new curriculum model was never fully adopted by the school; rather the staff picked bits and pieces from the prescribed "ideal." By the end of the year the staff had decided to abandon the model as originally envisioned altogether. More than anything else, Sunshine's short-lived experience with this

curriculum model could have confounded our results--particularly in the changes noted in the staff's interdependence around curricular materials. But from the observations and interviews conducted after the workshop, we have considerable confidence that neither the new curriculum model nor the other changes over time were significant influences on the changes in formal work relationships observed in Sunshine between the two time periods.

The Changes Explained Theoretically

How would we explain the changes in Sunshine's organizational patterns between the two surveys?

Initially, the formal structure of roles and responsibilities at Sunshine was a primary source of problems. The assignment of roles and responsibilities to individual staff members was unclear. For the most part staff members did not depend on one another to carry out their individual responsibilities. On schoolwide issues and matters involving individual students, however, staff members were forced to collaborate and coordinate their efforts.

Coordination can be accomplished in various ways: by assigning authority, by setting policies, by coordinating roles, by informal interaction, and by holding formal meetings. The Sunshine staff had selected and emphasized only one--formal meetings. These meetings were held frequently, were poorly structured, and usually resulted in nondecisions or decisions that were never implemented. Decisions thus recycled to the meetings as new problems to be solved. The meetings became arenas in which personality and philosophical differences became the central focus of staff deliberations. Unwilling to grant authority, develop policies, assign temporary coordinating roles, or even to interact informally, the staff had unwittingly designed a structure that was working against them rather than for them. But the cause of the difficulties was attributed to individuals rather than to this structure.

The organizational perspective of the survey-feedback process provided a new way of viewing these problems. The survey results provided a "mirror" in which the school's organizational patterns could be viewed, and the problem-solving skills and approaches used by the consultants provided both a role model and a repertoire of techniques for dealing with problems in a systematic way.

The "gestalt" of the two-day workshop--the theory, survey results, and group-process skills--provided the staff with some alternative directions. Attention was turned from individual personalities to work arrangements. Wittingly or not, the staff clarified various aspects of their situation, developed some policies, and assigned more structure to meetings. The history of the school prevented the assignment of additional authority to the head teacher, but the selection of other coordinating mechanisms allowed the staff to unite their efforts using forms more suitable to their unique situation.

Speculating still more about the causal patterns, we suggest that improved coordination made possible the increased interdependence, the reduced conflict, and the slightly higher morale of the staff. Although there is no way to document these linkages, theory (Thompson, 1967; Lawrence and Lorsch, 1967) and our fieldwork make such an interpretation persuasive.

What Aspects of Survey Feedback Worked?

Assuming that the survey feedback process was linked to the changes in Sunshine organizational patterns, which aspect or aspects of the process produced the changes? Survey feedback consists of three elements: theory, information, and problem-solving skills. Was one of the three more potent than the others?

At this time it is impossible to separate the effects of the three aspects of survey feedback. Our follow-up visits suggested that the staff at Sunshine were approaching their problems in new ways after the workshop. They were defining problems organizationally rather than in terms of individual personalities; they were using problem-solving skills in meetings; and to a lesser degree they continued to use the survey results and to follow through on the strategies identified in the initial workshop. In combination, the three elements of survey feedback produced a new "orientation" on the part of the Sunshine staff, providing them an expanded set of options for responding to problems. Over time, we believe, these responses accumulated to bring about the organizational changes observed between the two surveys. But it is impossible to specify which elements had what effect.

Conclusions and Implications

We began this effort with a conviction that many of the problems and conflicts in schools are the product of poorly designed organizations rather than inadequate, incompetent, or poorly motivated teachers, administrators, or students. Although Sunshine High School is a small, unique organization, we believe that many of the patterns we observed there exist in many educational organizations.

We were also convinced that teachers and administrators, given the appropriate tools, would be able to modify organizational patterns so as to improve the quality of their work situation and thus their overall effectiveness. Although the entire survey-feedback process was field tested in only one instance, we believe that the evidence of its impact is convincing and that it has potential for improving organizations. Blake and Mouton, in their recent book Consultation, argue that the most promising interventions of the future are those that emphasize theory and principles (Blake and Mouton, 1976). In our judgment the most powerful aspect of survey feedback is the theoretical perspective that focuses attention on organizational structures and processes rather than solely on individual attributes and motivations. Future research in organizational change would do well to test further the potential of the survey-feedback approach and attempt to isolate the effects of the three separate core components.

But despite this optimism, the ambivalence of Sunshine School in the beginning of our work, and the work of Meyer (1975) and Meyer and Rowan (1975, 1976), has caused us to reexamine the assumptions of rationality underlying the survey-feedback approach. In subsequent work, we will incorporate more "non-ational" ideas into the theoretical principles we attempt to reach as part of an organizational perspective, including the benefits to be derived from "myth," "ritual," a structural looseness, and the possibility that educational organizations are controlled institutionally. Meyer and Rowan's theoretical contribution greatly expands the options teachers and administrators have in designing their work situations. It may help to assure them that such designs are not overly rational constraints implemented in a decidedly nonrational world. Finally, recognizing that formative evaluation carries as great a potential for costs as for benefits may help to ensure that consultants use such techniques only under certain circumstances.

At Sunshine High School the potential cost of formative evaluation was overshadowed by the pain caused by an extremely poor fit between organizational patterns and the various contingencies of the situation. Under these conditions, we believe that survey feedback had a direct and positive effect. In other cases, however, survey feedback might produce unintentional and possibly costly consequences by explicitly bringing into question organizational patterns that ritually, if not rationally, have remained unquestioned.

Perhaps the most important lesson to be drawn from the case of Sunshine School is the importance of providing participants in an organization with alternative ways of viewing day-to-day problems rather than centering so much attention on individual attributes and characteristics. The importance of considering the tank, as well as the fish, seems obvious. Unfortunately, aquariums are often easier to understand than human organizations. Nevertheless, incorporating some sociological theory and wisdom into OD efforts of the future may increase our ability to improve educational organizations.

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